SAMSUNG

GSM TELEPHONE
SGH-P730

SERVICE Manual

GSM TELEPHONE

CONTENTS

1. Specification
2. Flow Chart of Troubleshooting
3. Exploded Views and Parts List
4. Electrical Parts List
5. Block Diagrams
6. PCB Diagrams

1. SGH-P730 Specification

1. GSM General Specification

	GSM900 Phase 1	EGSM 900 Phase 2	DCS 1800 Phase 1
Freq. Band [MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880
ARFCN range	1~124	0~124 & 975~1023	512~885
Tx/Rx spacing	45MHz	45MHz	95MHz
Mod. Bit rate / Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period / Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm
TDMA Mux	8	8	8
Cell Radius	35Km	35Km	35Km

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2. GSM Tx Power Class

Tx Power control level	GSM900
5	33±3 dBm
6	31±3 dBm
7	29±3 dBm
8	27±3 dBm
9	25±3 dBm
10	23±3 dBm
11	21±3 dBm
12	19±3 dBm
13	17±3 dBm
14	15±3 dBm
15	13±3 dBm
16	11±3 dBm
17	9±3 dBm
18	7±3 dBm
19	5±3 dBm

Tx Power control level	DCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

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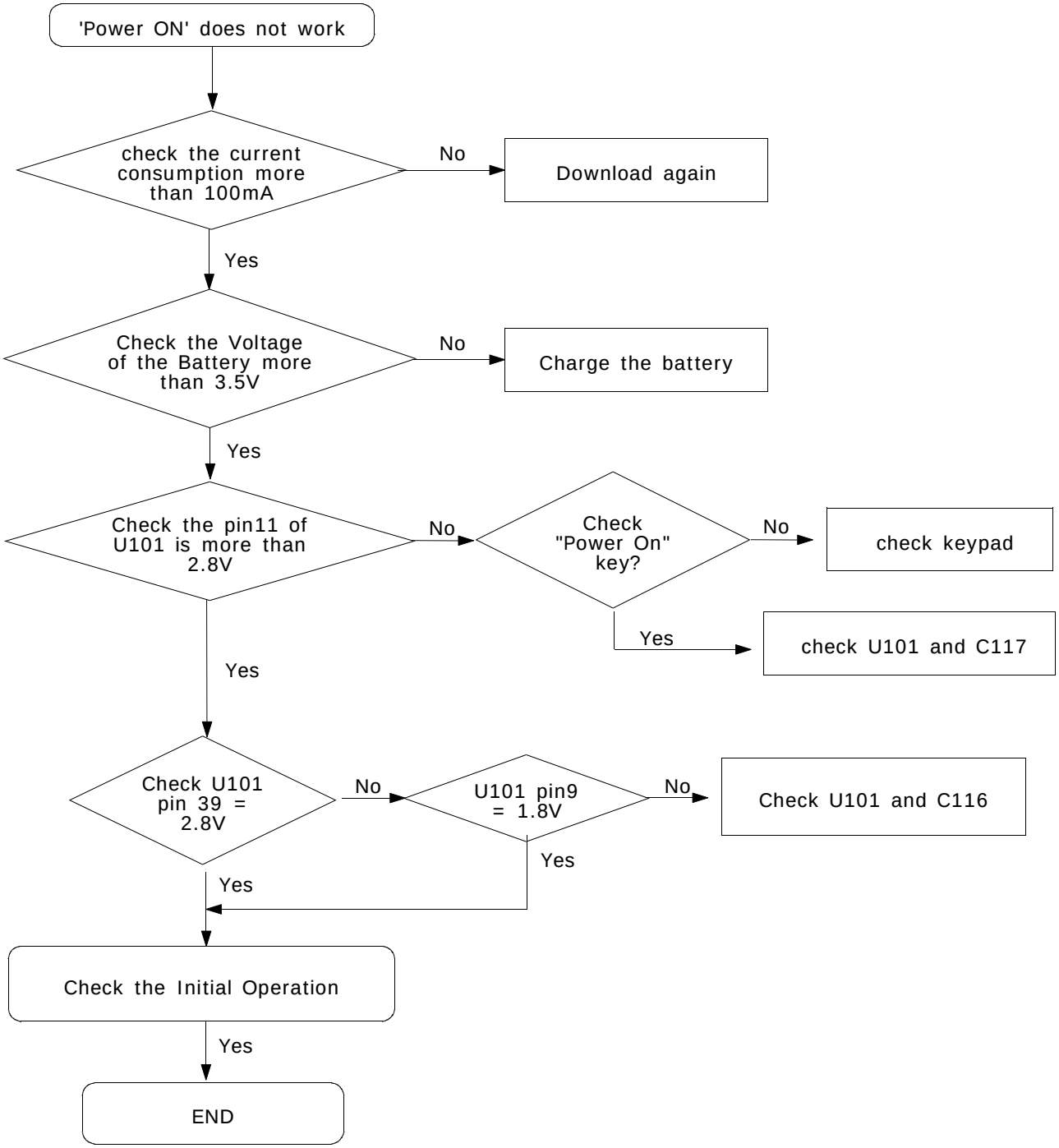
2. SGH-P730 Flow Chart of Troubleshooting and Circuit Diagrams

1. Power On



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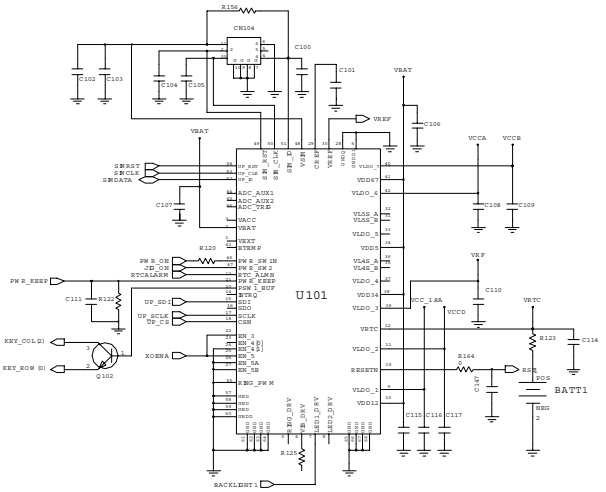

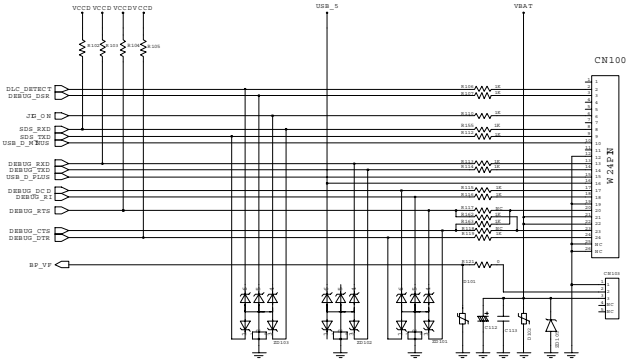

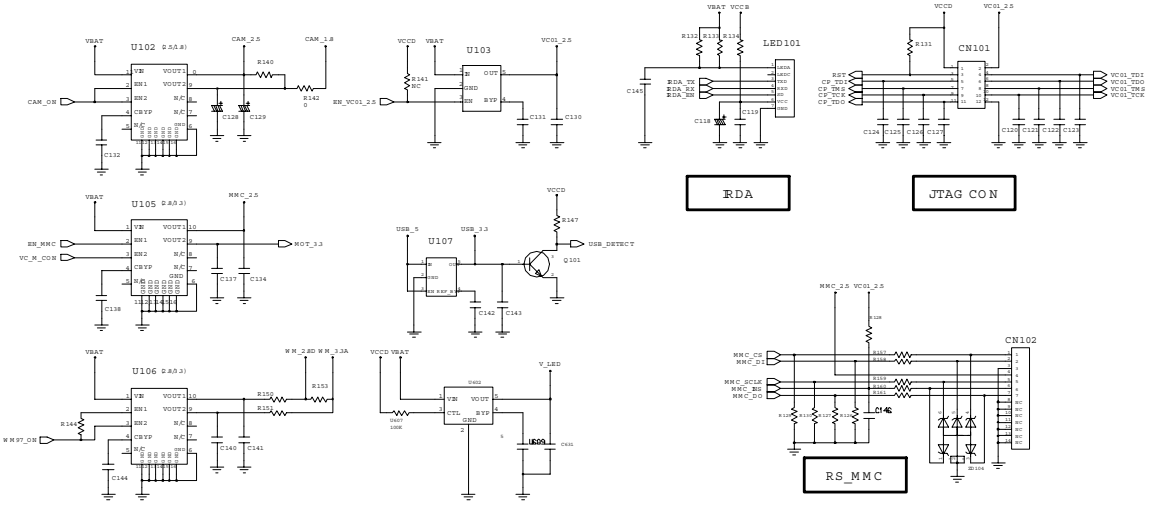

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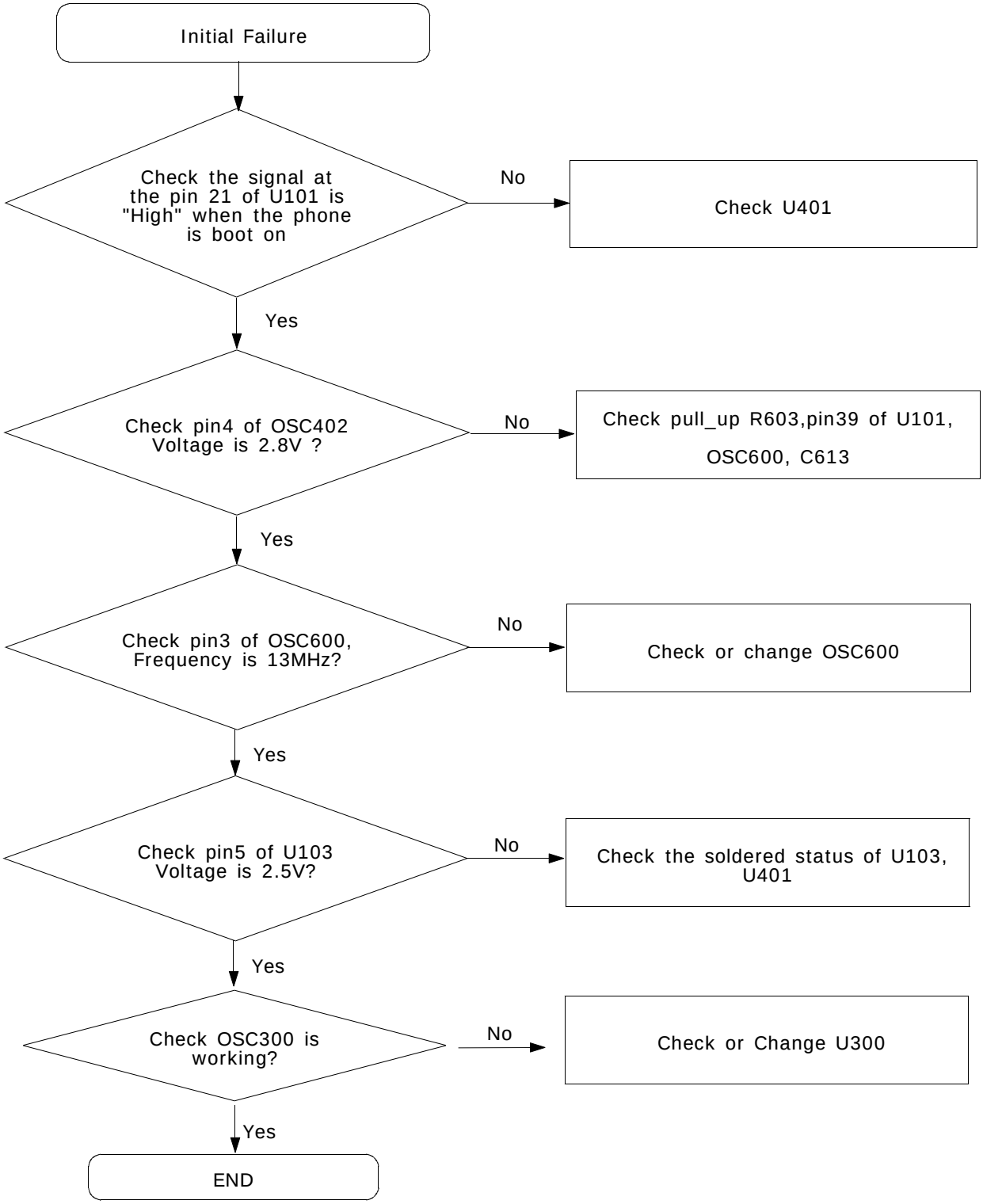
2. Initial



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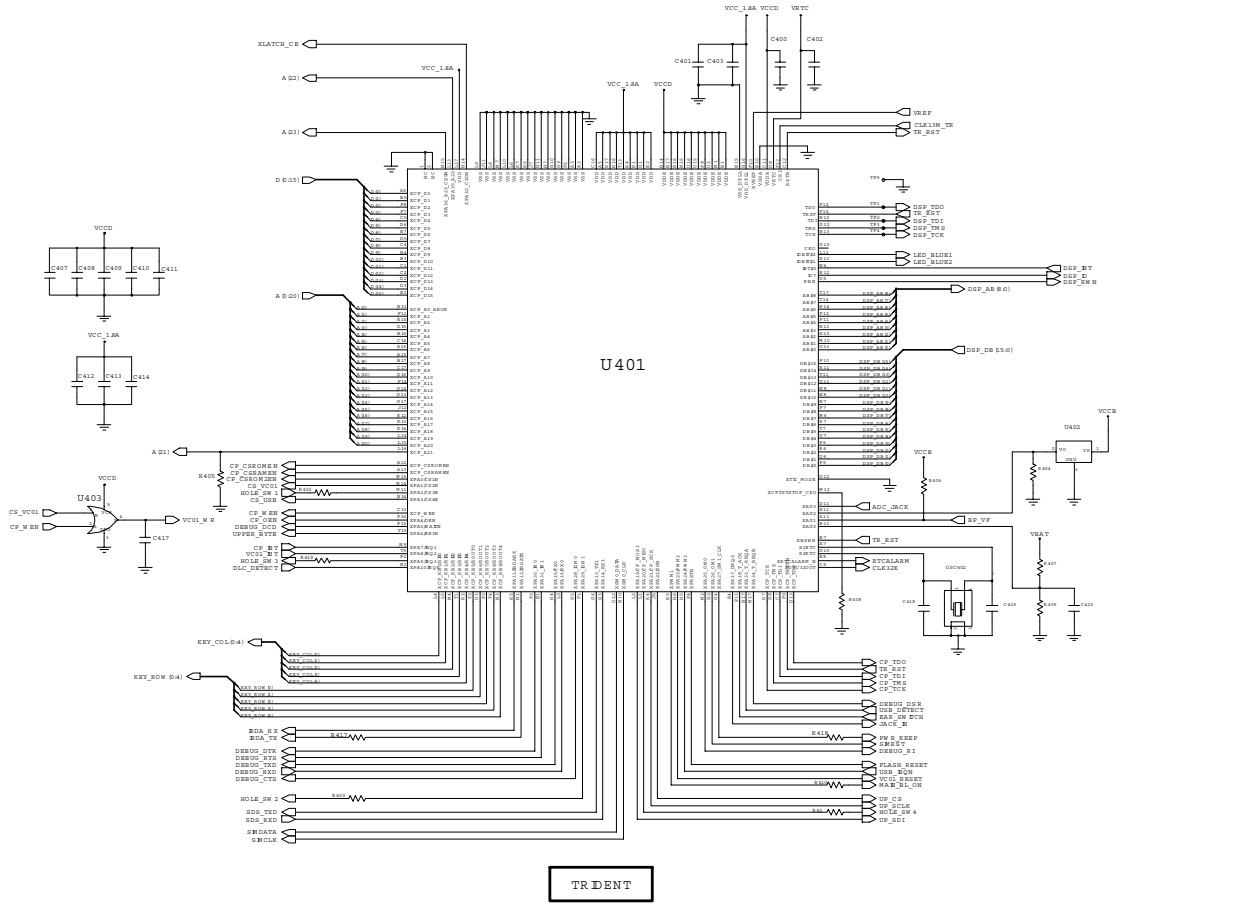

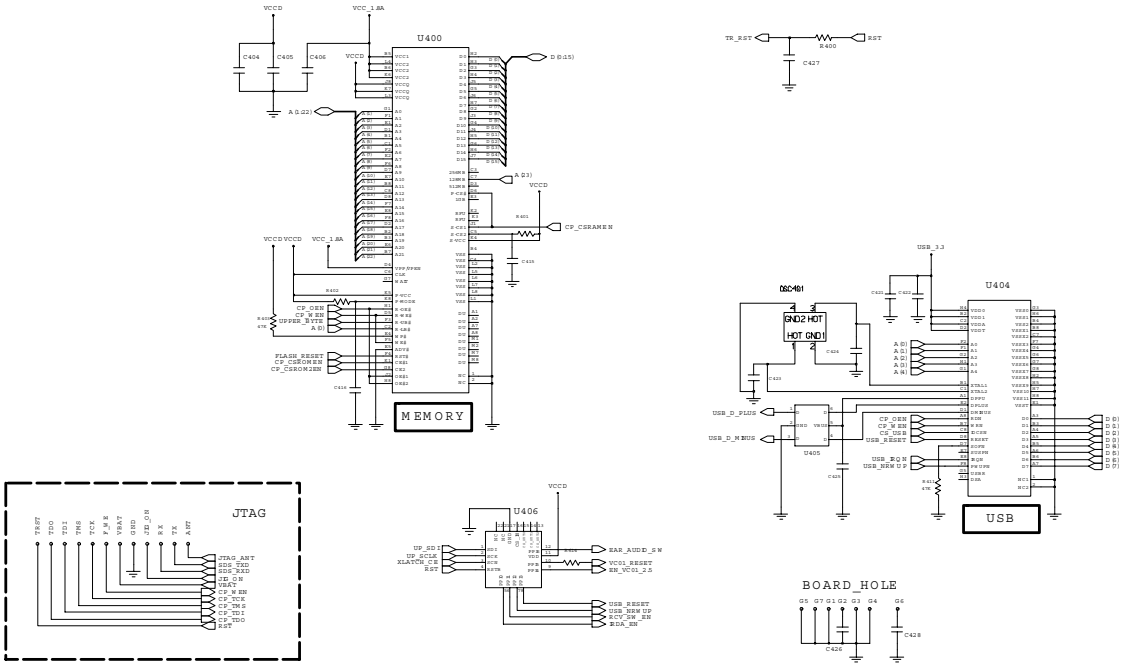

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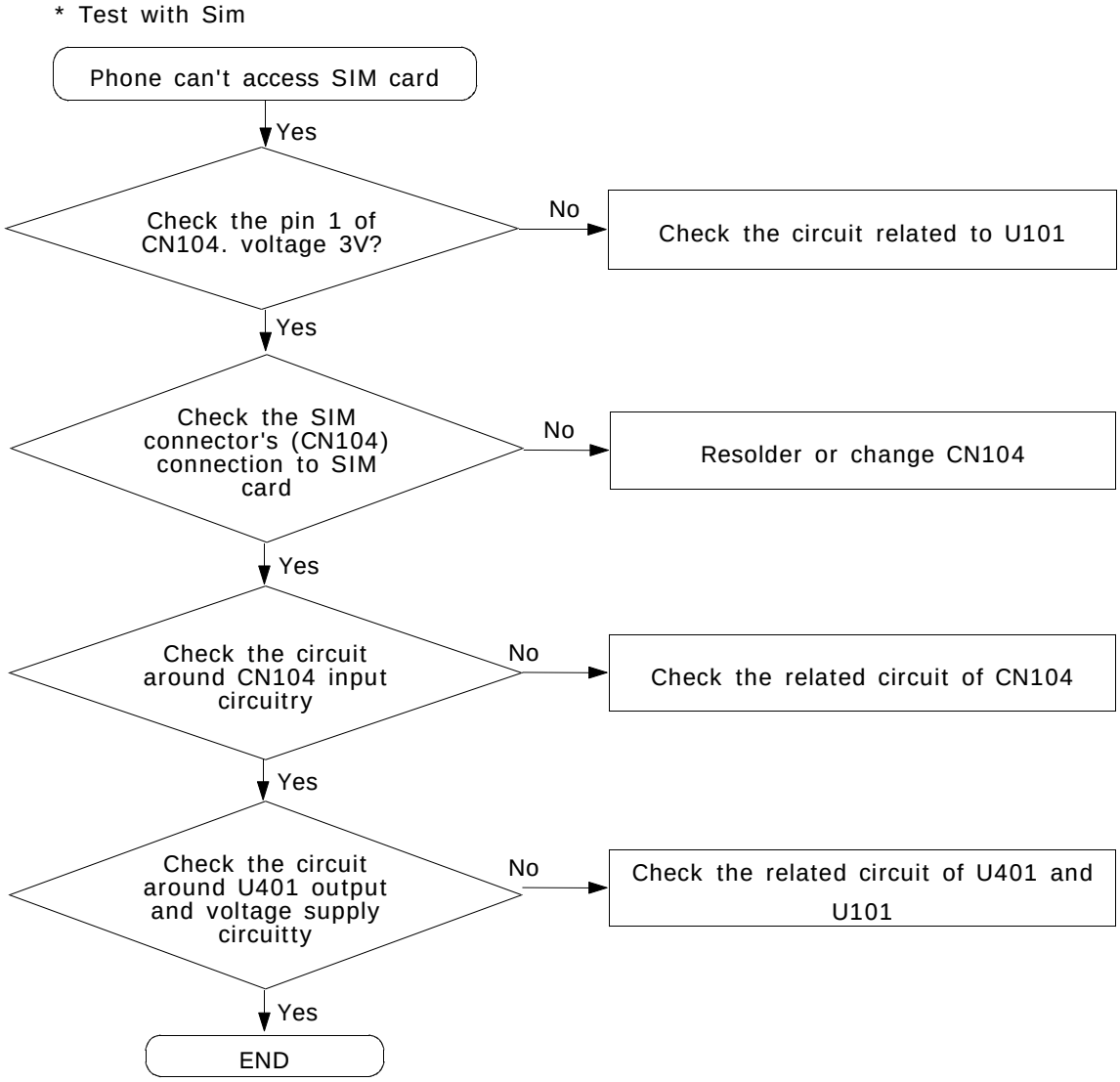
3. Sim Part



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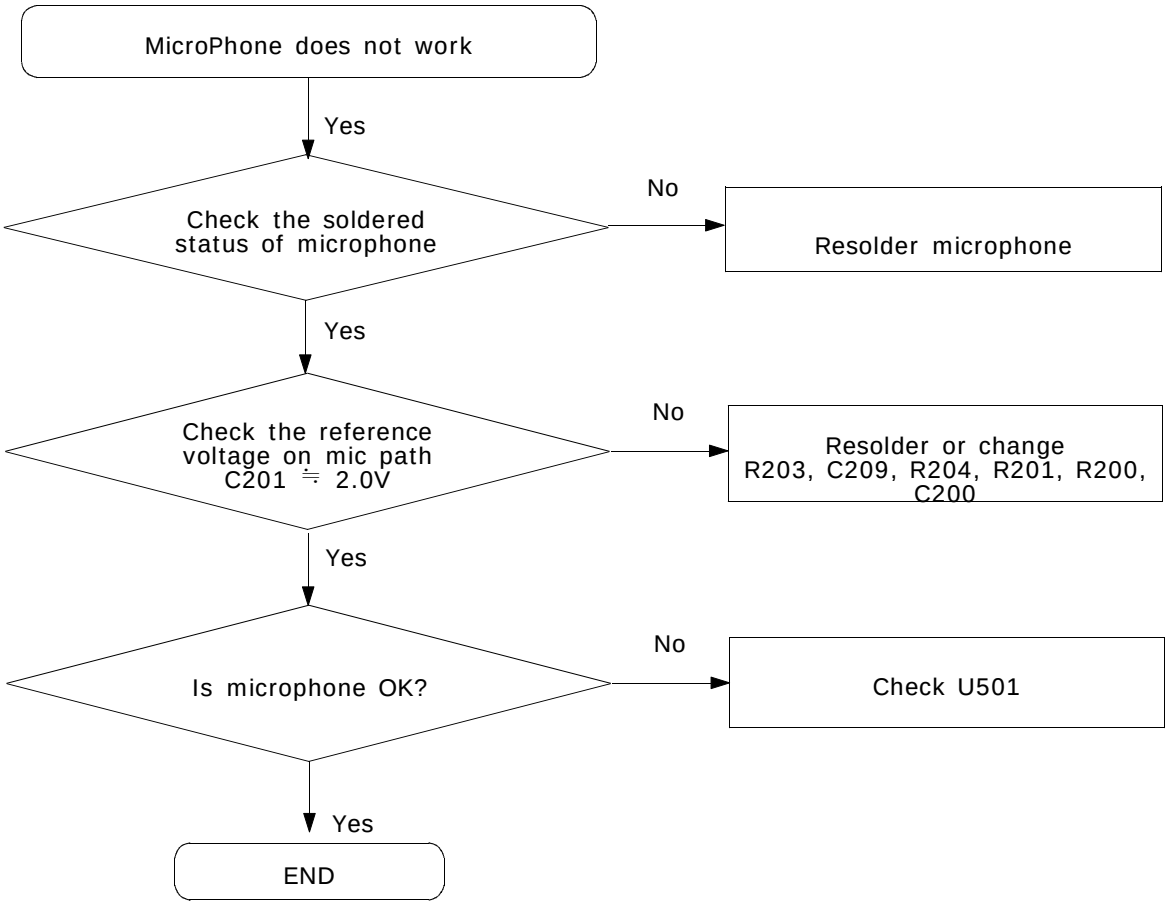
4.Microphone Part

* Call with Sim before testing.



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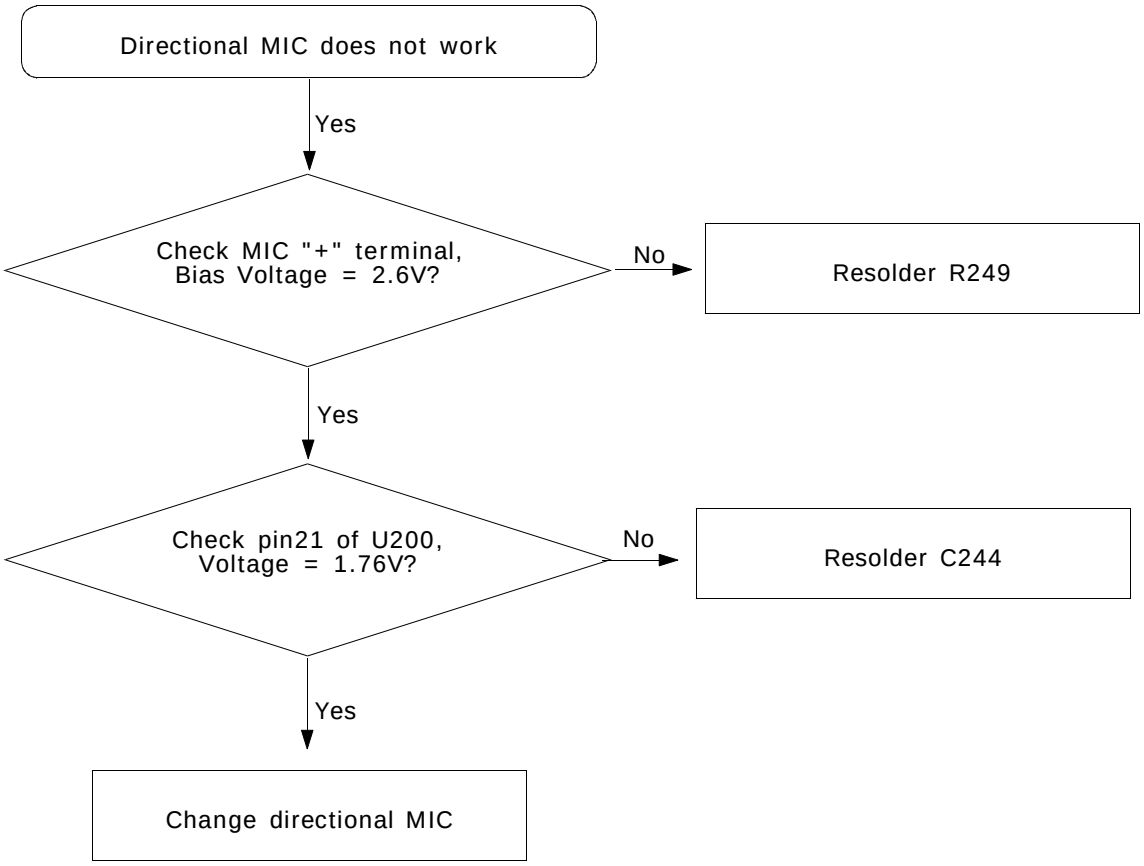
5.Directional MIC Part

* When you play MPEG file, if Audio is not active



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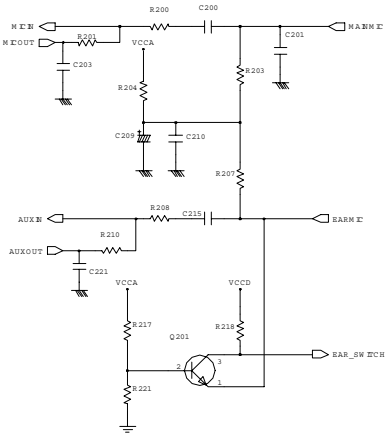

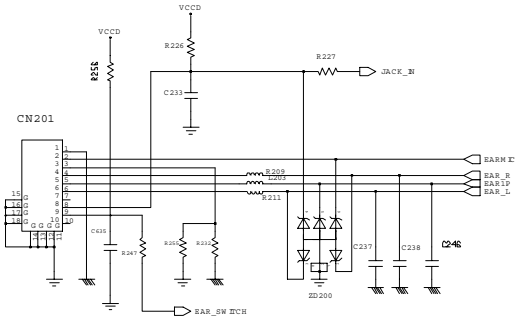

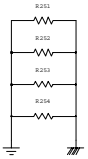

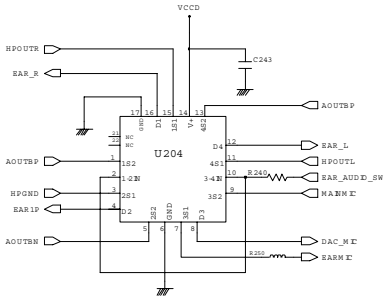

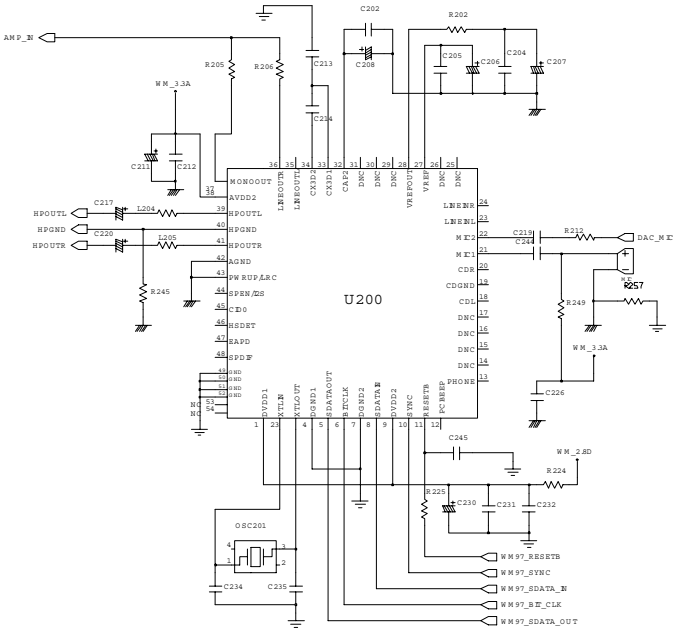

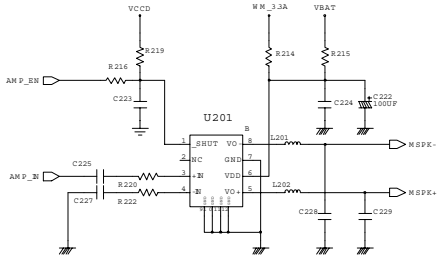

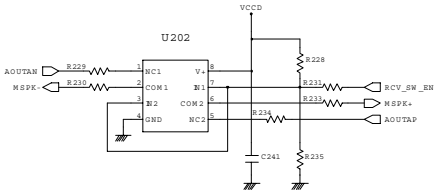

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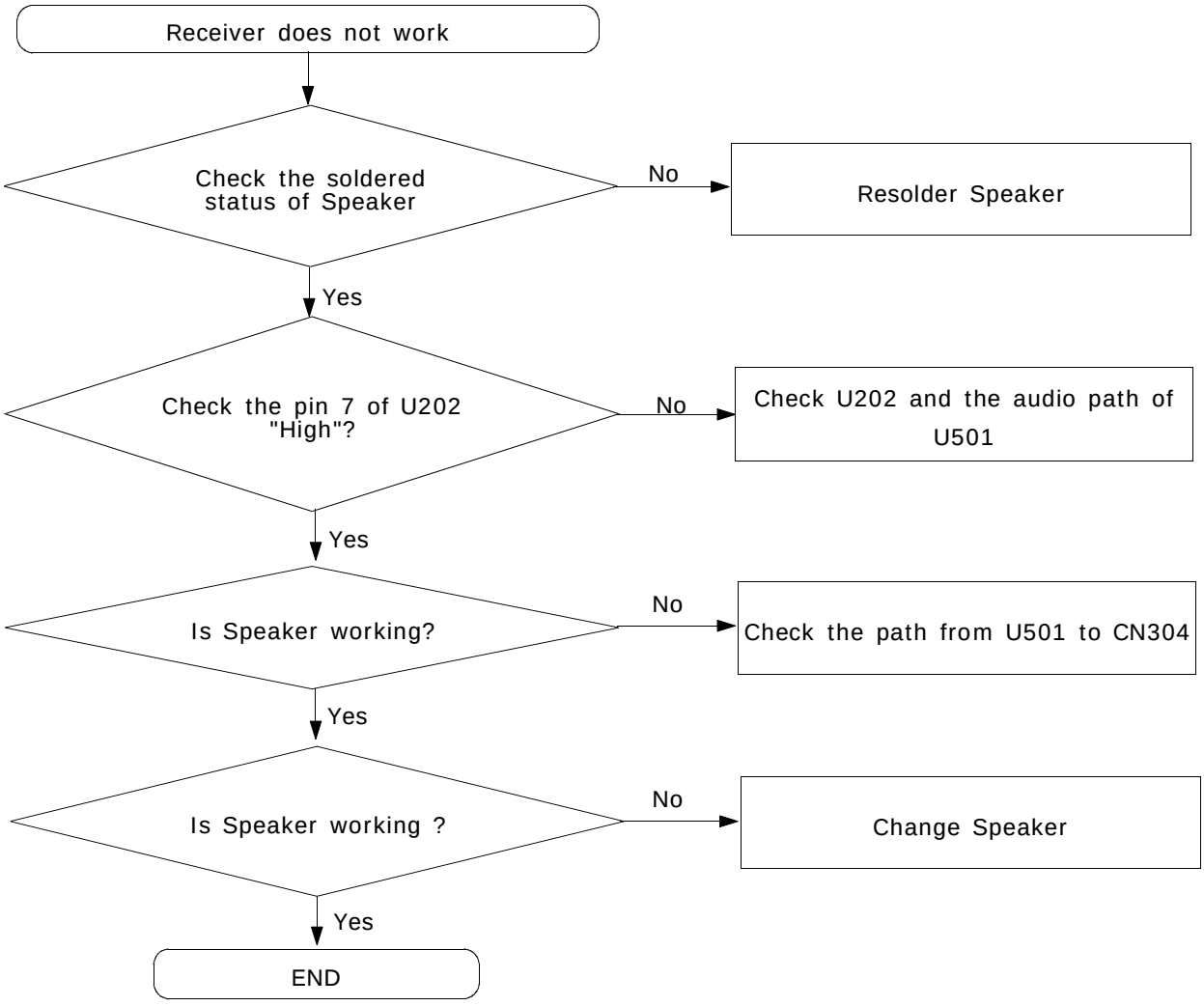
6. Speaker Part

* Call before testing.



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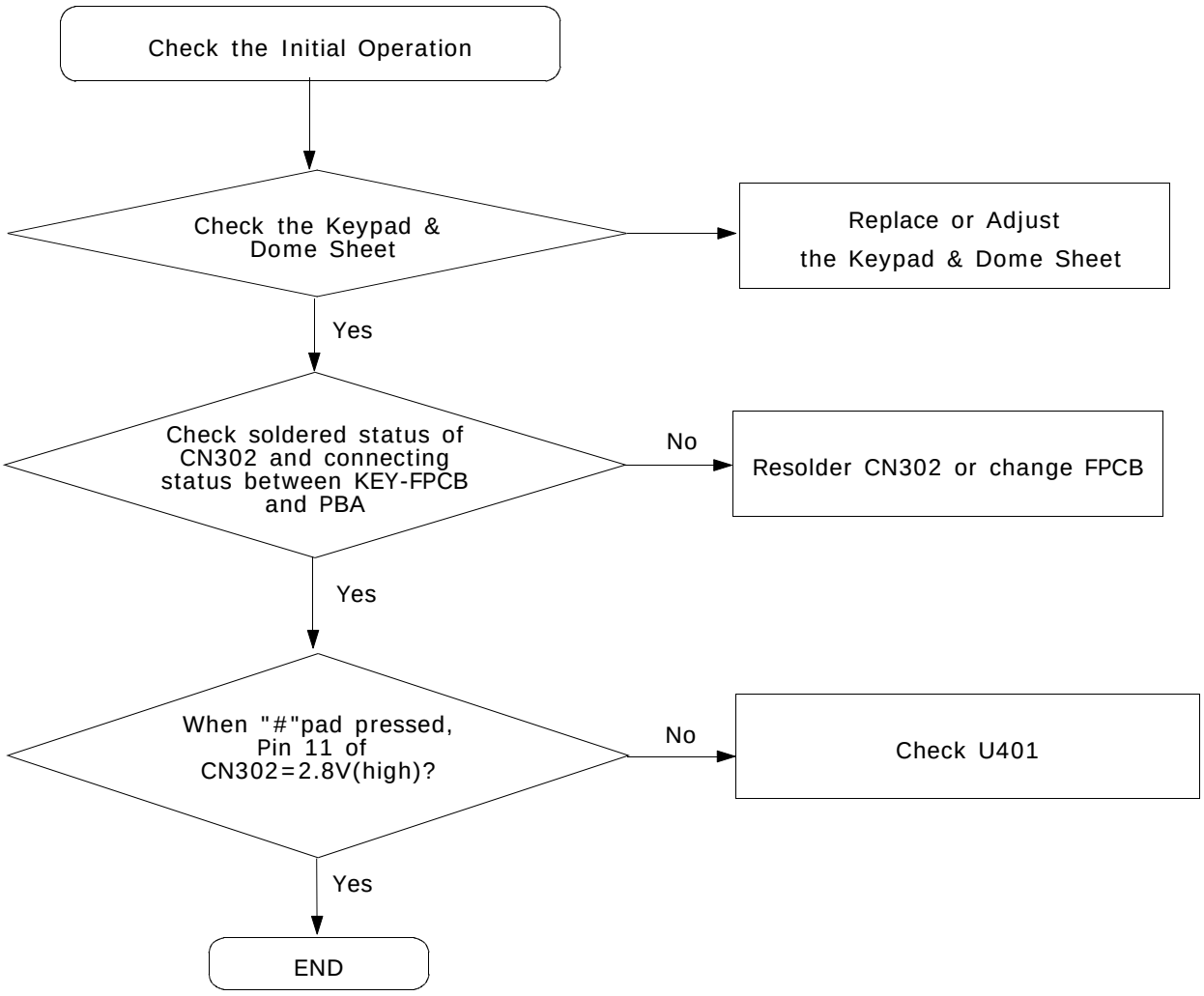
7. Key Data Input



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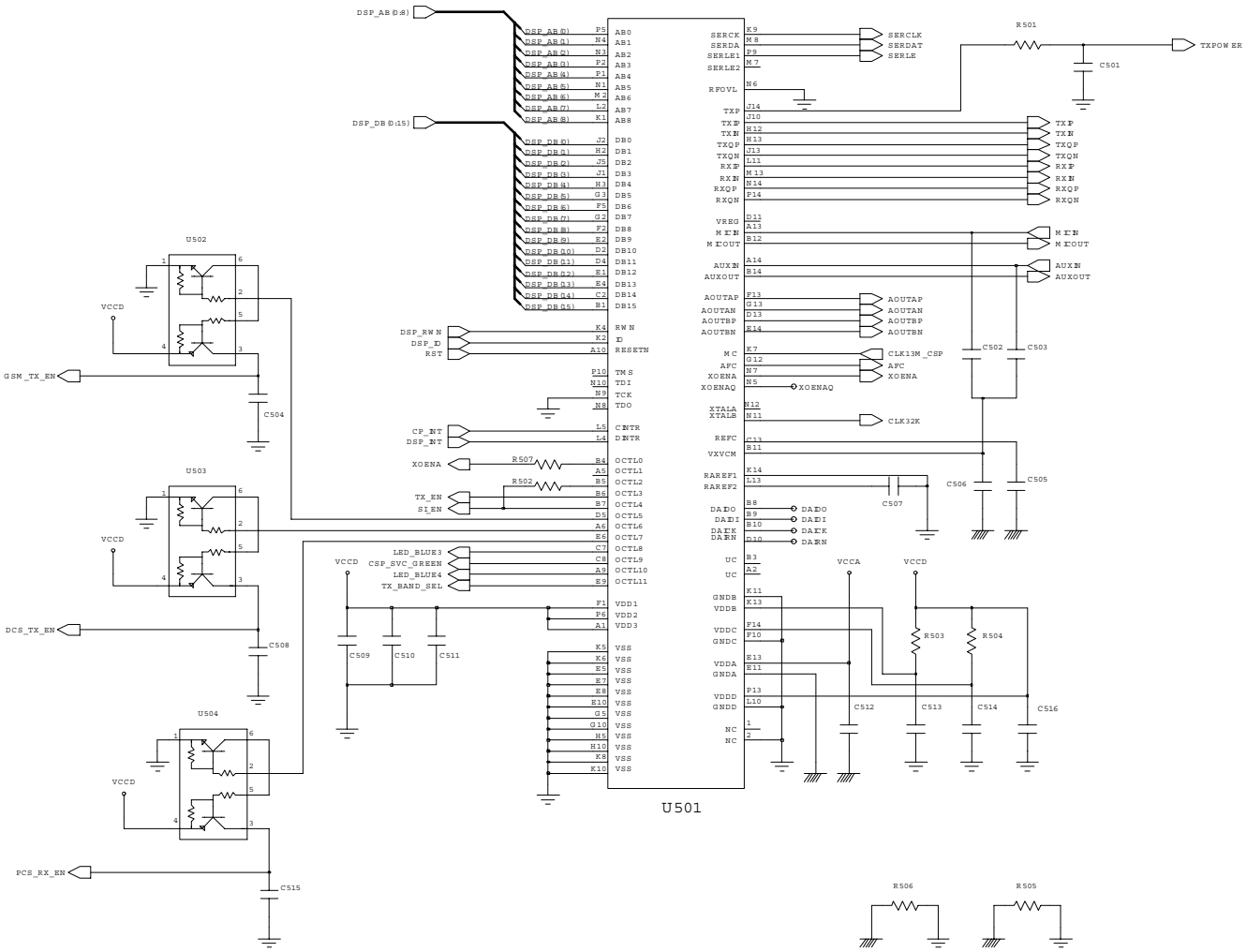

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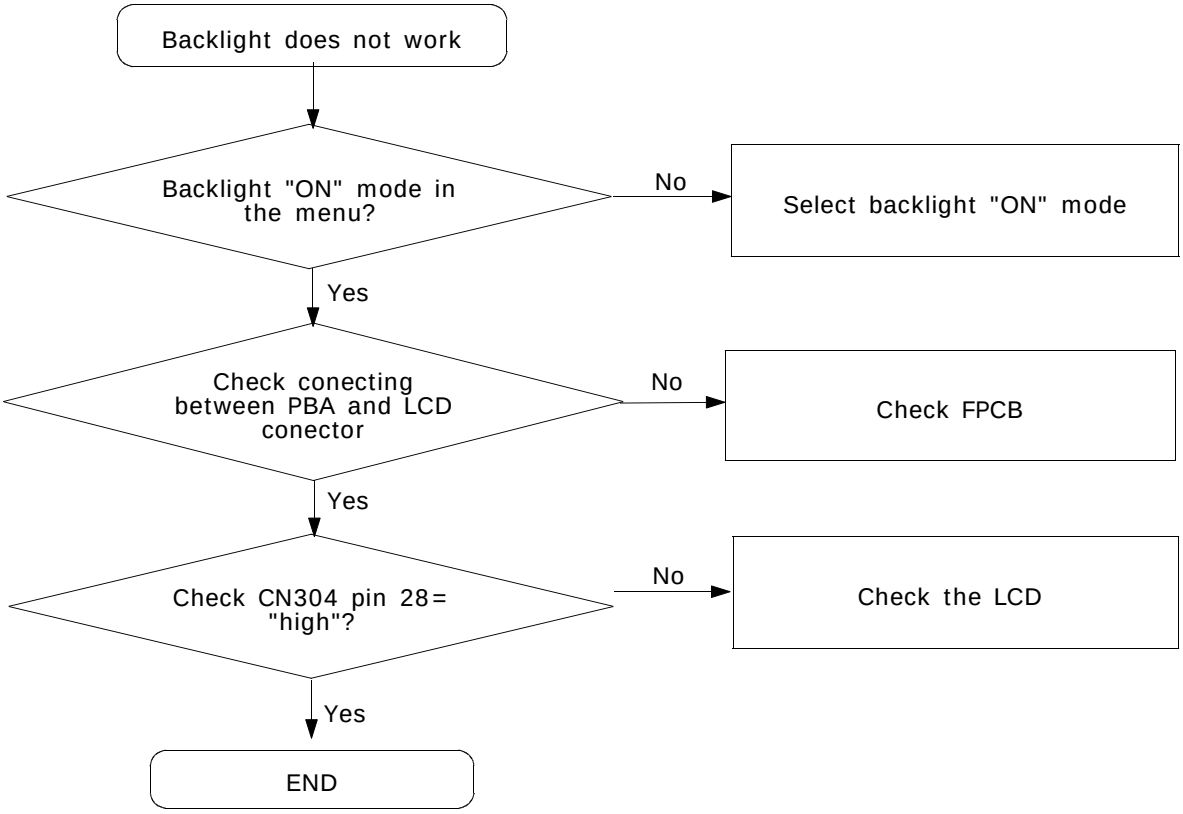
8. LCD backlight



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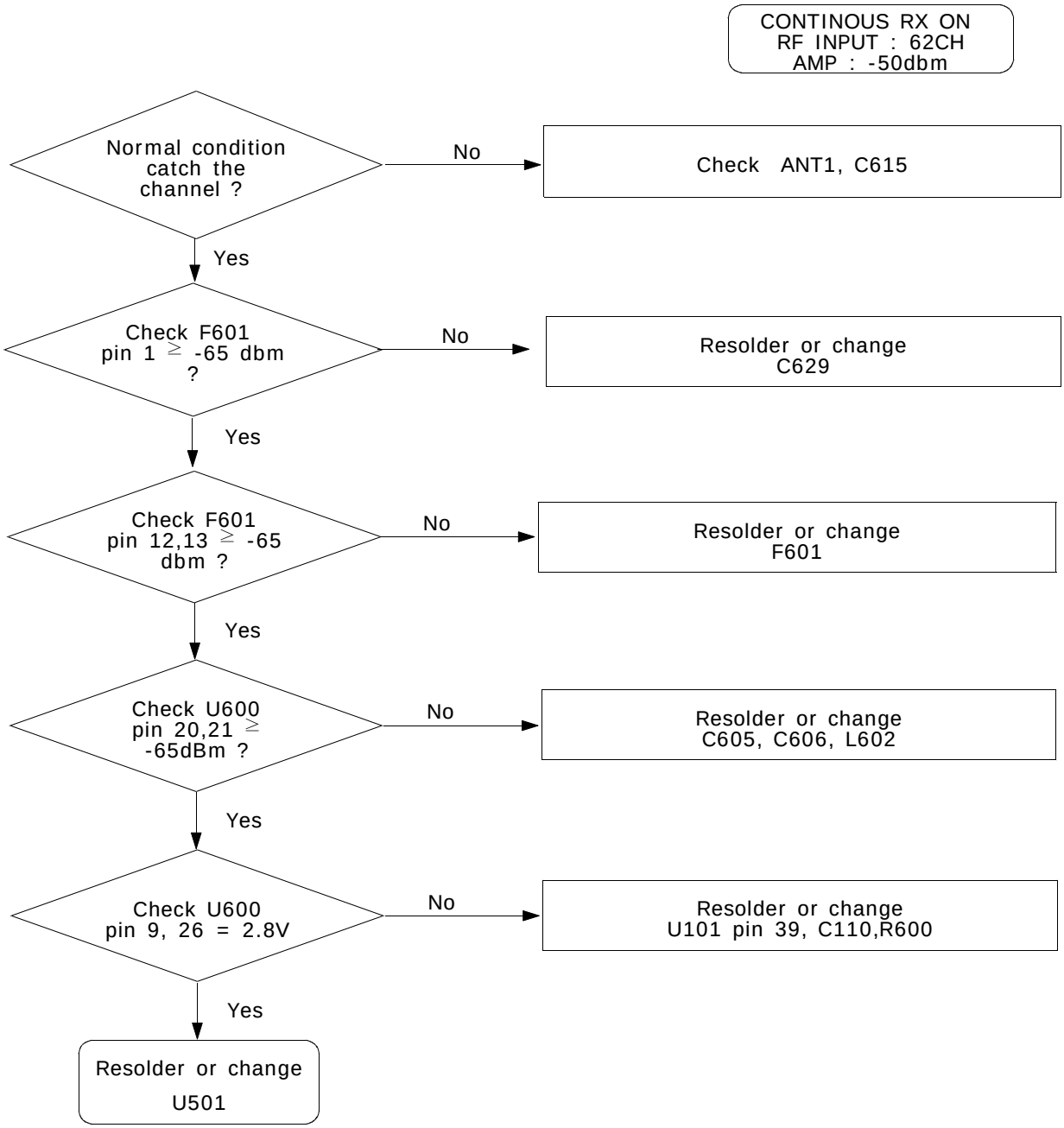
9. GSM Receiver



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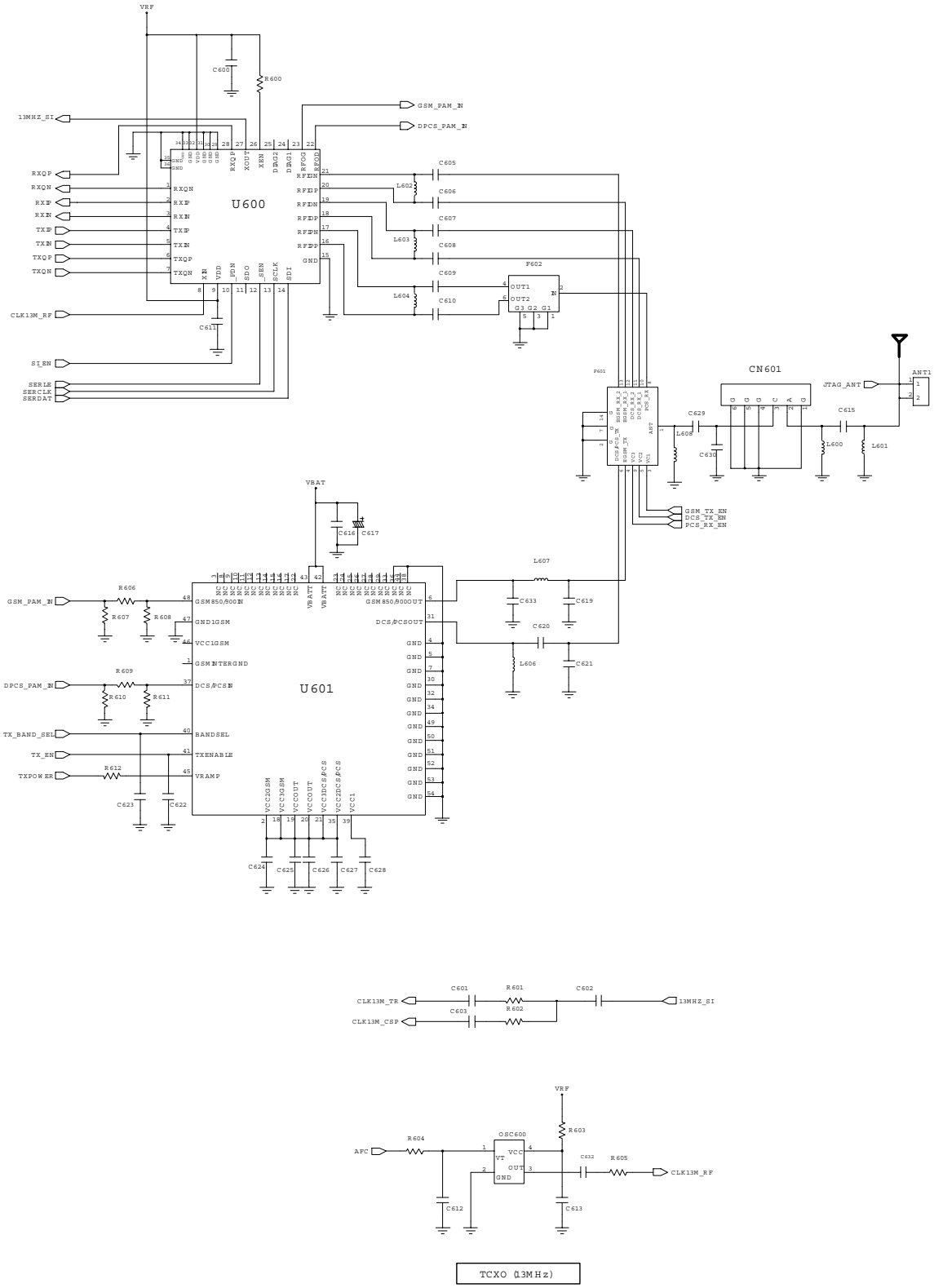

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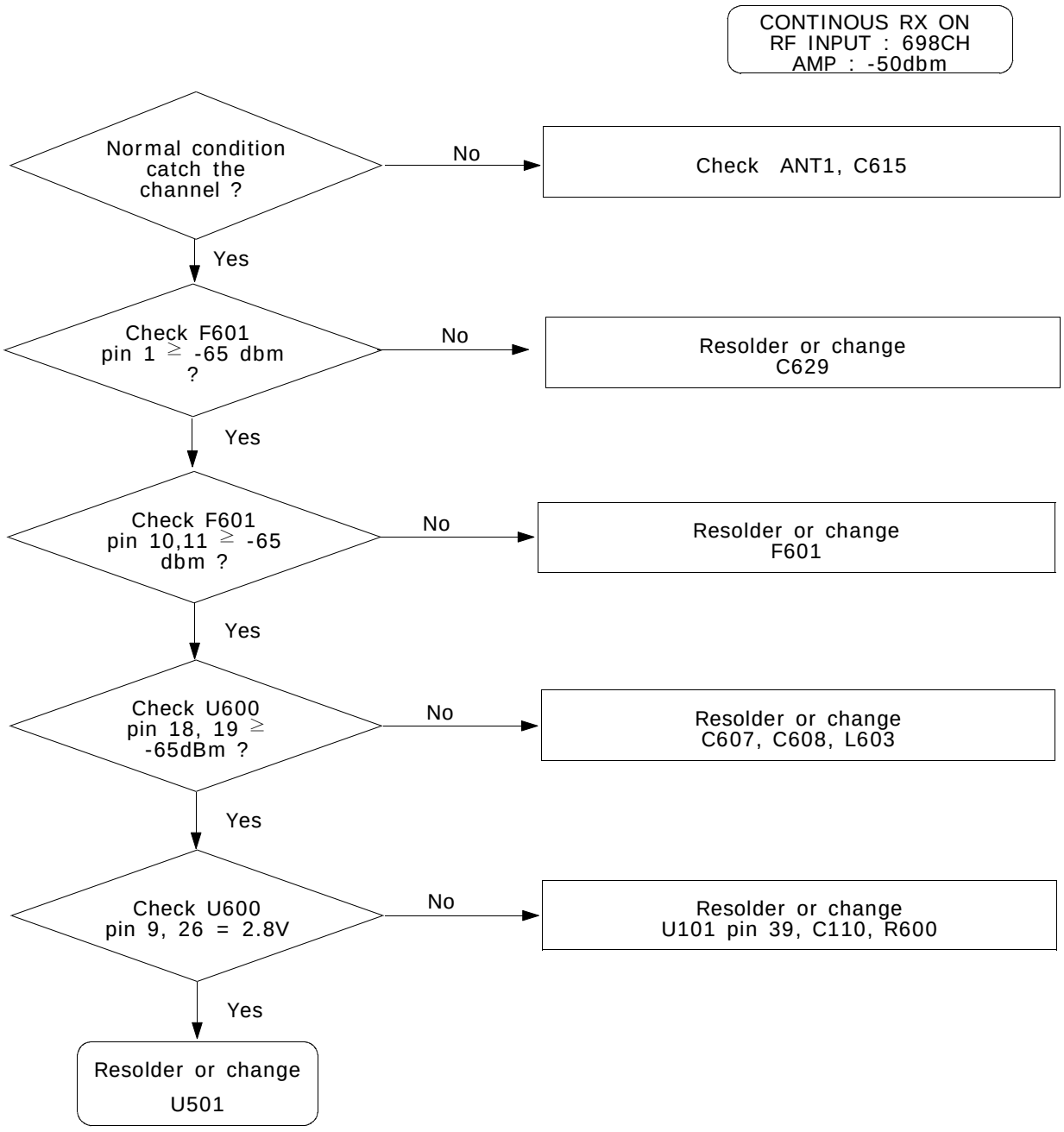
10. DCS Receiver



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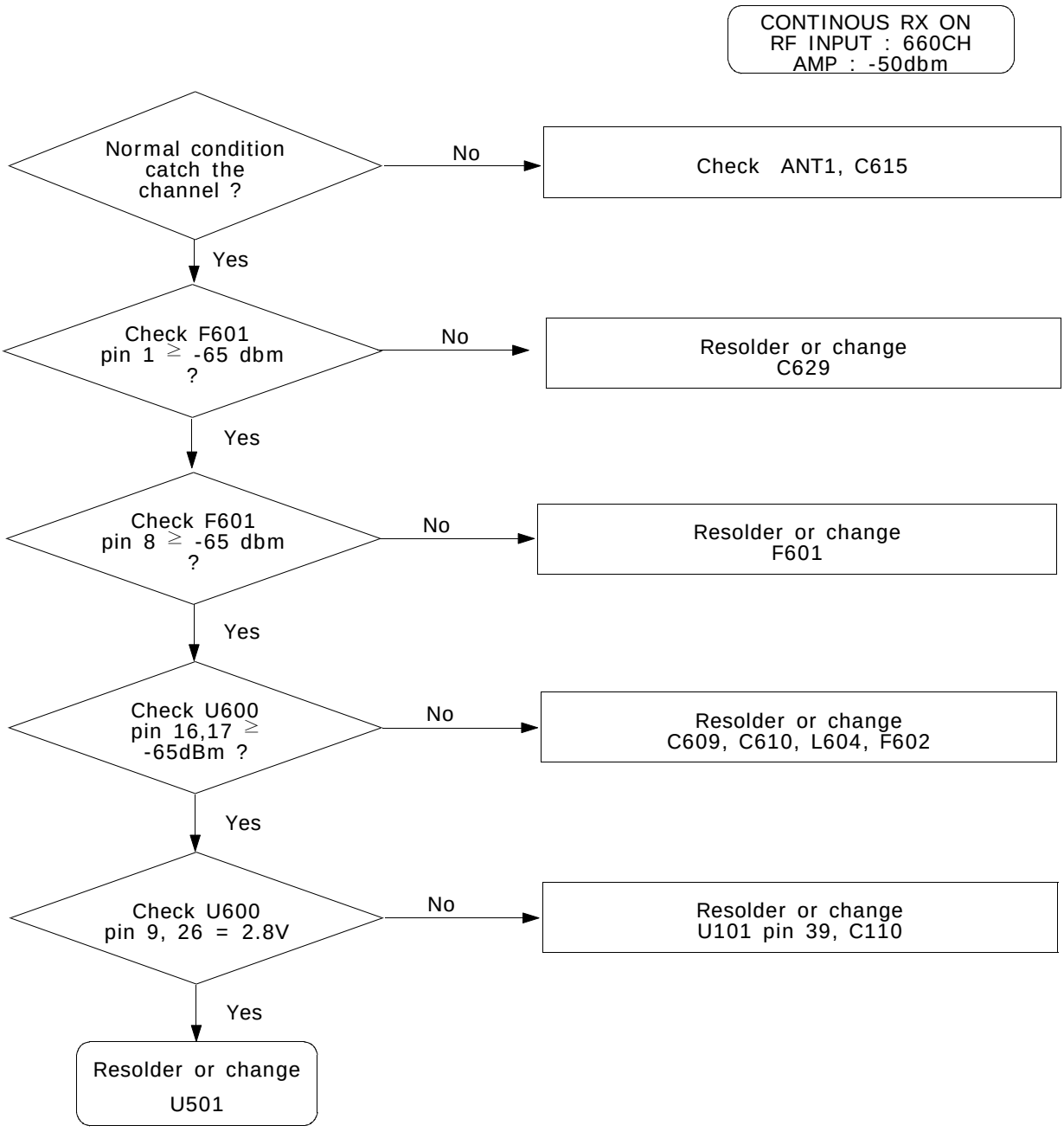
11. PCS Receiver



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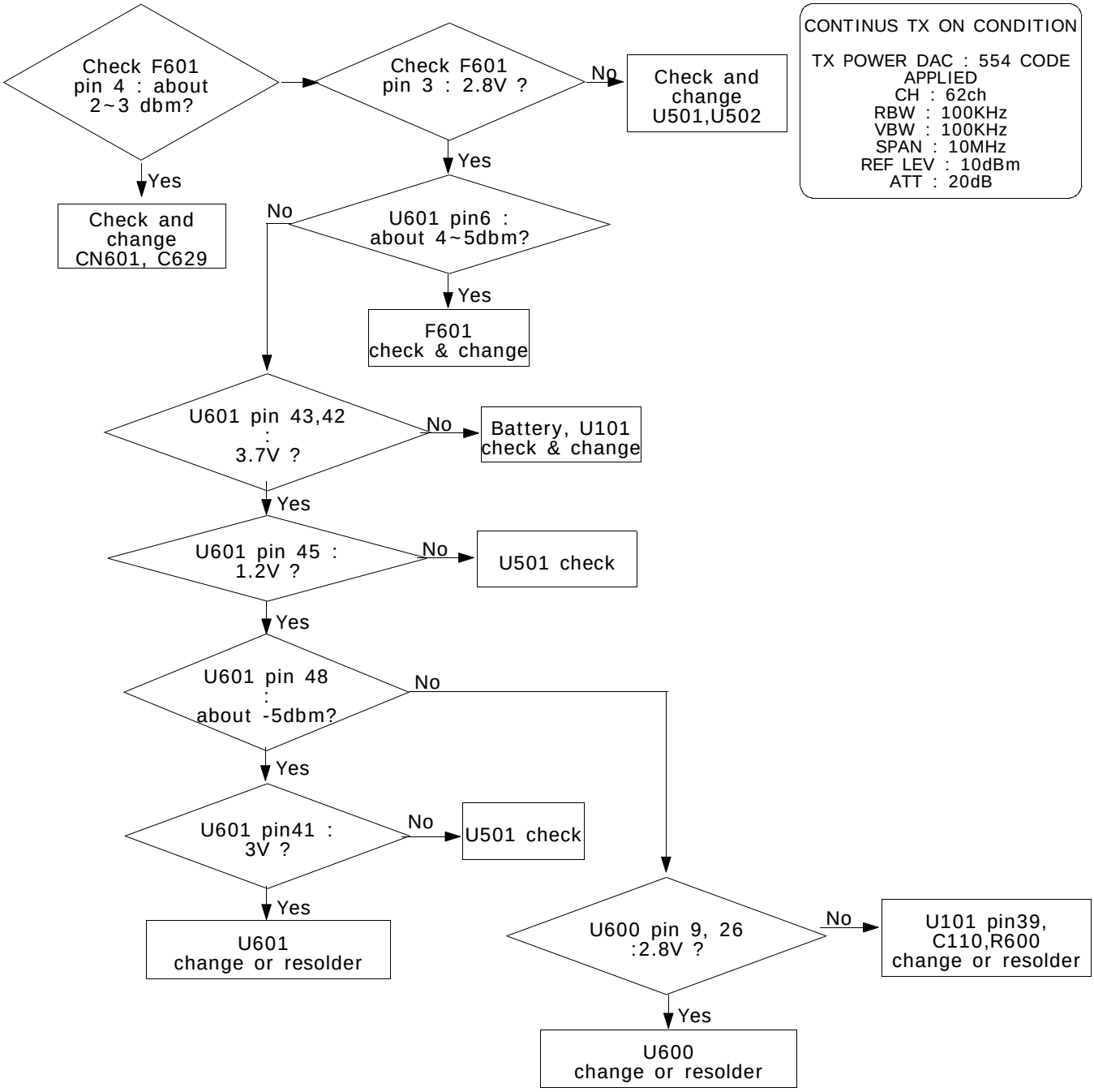
12. GSM Transmitter



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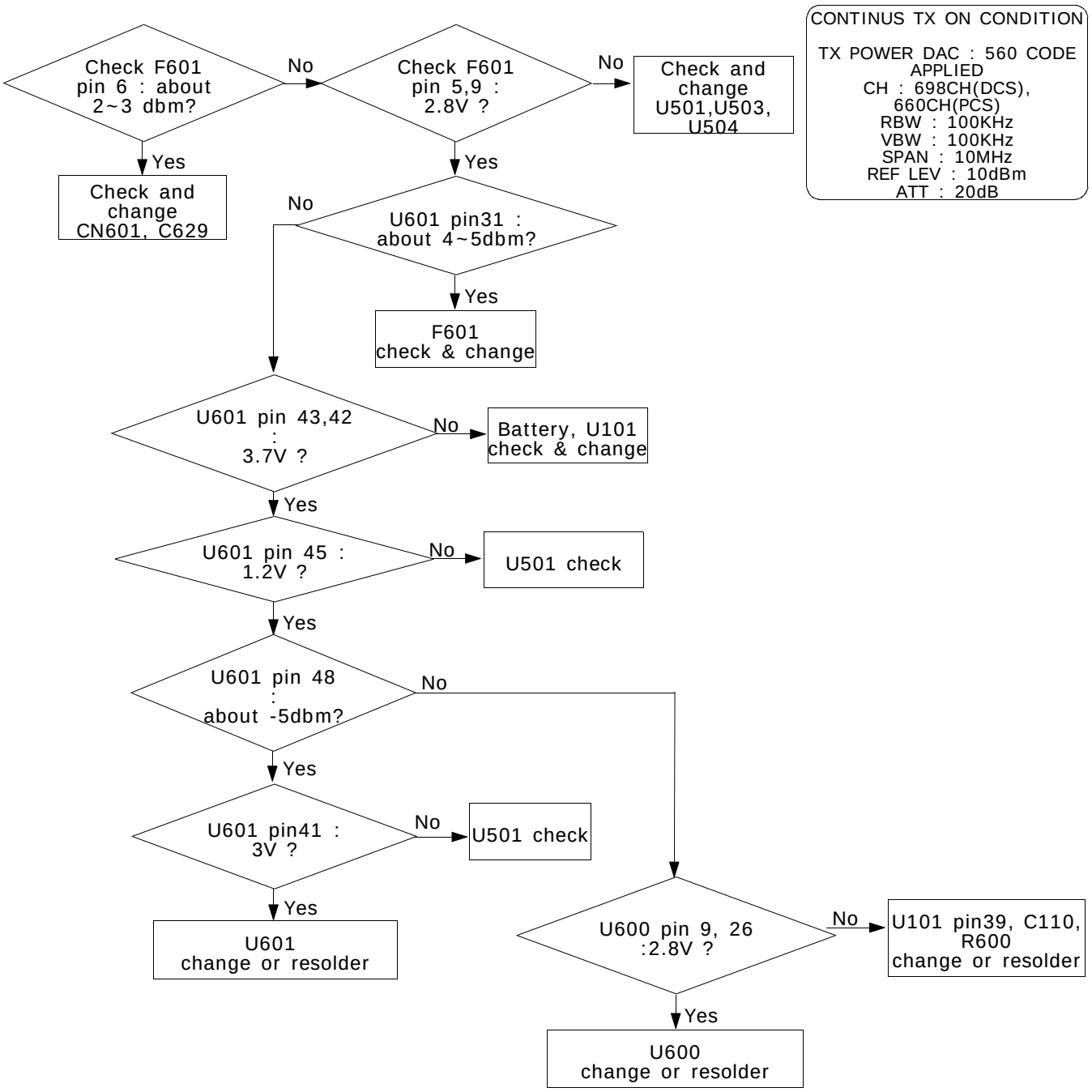
12. DCS/PCS Transmitter



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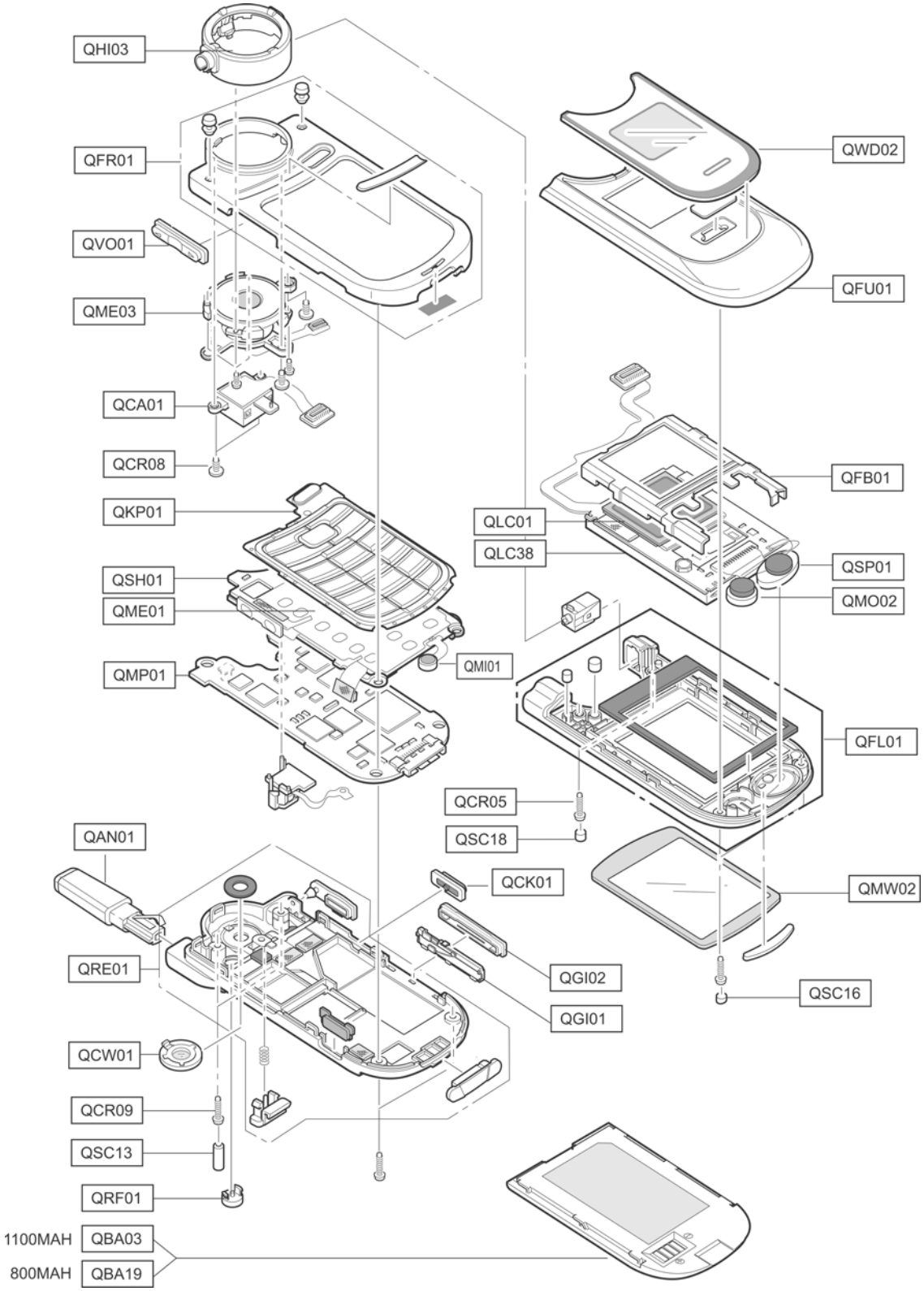
3. SGH-P730 Exploded View and its Parts list

1. Cellular phone Exploded View



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2. Cellular phone Parts list

Location NO.		Description	SEC CODE	Remark
QWD02		SUB WINDOW	GH72-13688A	
QFU01		F/UPPER ASSY	GH75-04670A	
QFB01		SUB LCD BRACKET	GH75-05019A	
QSP01		SPEAKER	3001-001627	
QMO02		MOTOR	3101-001371	
QFL01		SUB F/LOWER	GH75-05018A	
QMW02		MAIN WINDOW	GH72-13691A	
QSC16		FOLDER CAP TOP	GH75-03273A	
QLC01		LCD SUB	GH07-00544A	
QLC38		LCD	GH07-00360A	
QMI01		MICROPHONE	GH30-00114A	
QCR05		SCREW	6001-001478	
QSC18		FOLDER CAP BUTTOM	GH75-03274A	
QCK01		CAMERA KEY	GH75-03009A	
QHI03		HINGE HOUSING	GH75-04213A	
QFR01		SUB FRONT COVER ASSY	GH75-04668A	
QVO01		VOLUME KEY	GH75-03008A	
QME03		UNIT JOG KEY	GH59-01354A	
QCA01		UNIT CAMERA	GH59-01362A	
QCR08		SCREW	6001-001456	
QKP01		KEYPAD	GH75-04674A	
QSH01		REAR SHIELD	GH71-03329A	
QME01		UNIT KEYPAD	GH59-01355A	
QMP01		MAIN PBA	GH92-01636A	
QAN01		ANTENNA	GH42-00402A	
QRE01		SUB REAR COVER ASSY	GH75-04669A	
QCR09		SCREW	6001-001670	
QSC13		REAR HOLE CAP	GH75-03914A	
QRF01		RF COVER	GH72-12347A	
QBA03		BATTERY 1100MAH	GH43-01293A	
QBA19		BATTERY 800MAH	GH43-01292A	
QGI01		MMC DOOR	GH75-05194A	
QGI02		MMC COVER	GH75-05629A	
QCW01		SUB CAMERA WINDOW	GH75-04333B	

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3. Test Jig (GH80-00865A)

3-1. RF Test Cable (GH39-00090A)

3-2. Test Cable (GH39-00324A)

3-3. Serial Cable

3-4. Power Supply Cable

3-5. DATA CABLE (GH39-00279A)

3-6. TA (GH44-00701A)

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4. SGH-P730 MAIN Electrical Parts List

Design LOC	SEC Code
ZD105	0403-001387
D301	0404-001172
ZD101,ZD102,ZD103	0406-001190
ZD104,ZD200,ZD303	0406-001190
ZD304,ZD305,ZD306	0406-001190
ZD309	0406-001190
Q101,Q102,Q301,Q302	0504-000168
Q303,Q304,Q305,Q306	0504-000168
Q307	0504-000168
U502,U503,U504	0504-001042
Q300	0505-001770
LED101	0604-001261
U403,U603	0801-000796
U302	0801-002866
U202	1001-001161
U204	1001-001253
U301	1107-001455
U400	1109-001281
U601	1201-002075
U201	1201-002103
U107	1203-001256
U602	1203-001518
U103	1203-002113
U101	1203-002902
U105,U106	1203-003169
U102	1203-003322
U405	1204-001915
U501	1204-001984
U300	1204-002169
U200	1205-002364
U600	1205-002433
U402	1209-001219
D101,D102	1405-001018
ZD301,ZD302,ZD307	1405-001082
ZD308	1405-001082
ZD310	2007-000102
R334,R335	2007-000137
R324,R605	2007-000138
R375,R376,R378,R379	2007-000139
R380,R381,R382,R383	2007-000139

Design LOC	SEC Code
C123,C124,C125,C126	2203-000233
C127,C501,C502,C603	2203-000233
C131,C132,C138,C144	2203-000254
C146,C245,C309,C403	2203-000254
C407,C408,C409,C410	2203-000254
C413,C422,C425,C509	2203-000254
C510,C511,C512,C513	2203-000254
C514,C516,C602,C611	2203-000254
C612,C613,C616,C626	2203-000254
C632,C634	2203-000254
C314,C315,C600	2203-000278
C418,C419	2203-000330
C503	2203-000311
C423,C424	2203-000386
C601	2203-000425
C221,C223,C624,C627	2203-000438
C628	2203-000438
C633	2203-000466
C234,C235	2203-000628
C623	2203-000654
C401,C615	2203-000679
C100,C104,C105,C504	2203-000812
C508,C515,C622	2203-000812
C142,C203	2203-000940
C316,C625,C629	2203-000995
C225,C227	2203-001210
C313	2203-001239
C607,C608	2203-001383
C609,C610	2203-001385
C402	2203-001405
C102	2203-001598
C119	2203-001652
C605,C606	2203-002677
C428	2203-005056
C103,C202,C204,C205	2203-005061
C212,C214,C226,C231	2203-005061
C232,C241,C243,C300	2203-005061
C308,C310,C311,C312	2203-005061
C400,C404,C405,C406	2203-005061
C420,C507	2203-005061

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Design LOC	SEC Code
R384,R385,R386,R387	2007-000139
R388,R389,R390	2007-000139
R106,R107,R110,R112	2007-000140
R113,R114,R115,R116	2007-000140
R119,R120,R155,R162	2007-000140
R163,R314,R315,R321	2007-000140
R415,R419,R430,R431	2007-000140
R203,R207,R249,R601	2007-000141
R332,R349,R352	2007-000143
R501	2007-000144
R160,R200,R208,R216	2007-000148
R225,R227,R604	2007-000148
R102,R103,R104,R105	2007-000157
R131,R147,R402,R403	2007-000157
R405,R411	2007-000157
R201,R210	2007-000160
C303,R126,R127,R128	2007-000162
R129,R141,R130,R228	2007-000162
R256,R310,R311,R312	2007-000162
R313,R316,R317,R318	2007-000162
R319,R325,R326,R327	2007-000162
R329,R330,R366,R367	2007-000162
R368,R373,R374,R408	2007-000162
U607	2007-000162
R364,R404	2007-000170
R121,R134,R142,R144	2007-000171
R150,R151,R157,R158	2007-000171
R159,R161,R164,R206	2007-000171
R214,R224,R230,R231	2007-000171
R232,R233,R240,R247	2007-000171
R251,R252,R253,R255	2007-000171
R320,R322,R323,R339	2007-000171
R340,R341,R342,R344	2007-000171
R345,R356,R361,R362	2007-000171
R365,R377,R393,R394	2007-000171
R395,R396,R397,R401	2007-000171
R417,R418,R505,R506	2007-000171
R600,R615,R616,R617	2007-000171
R618,R619	2007-000171
R212,R229,R234,R363	2007-000172

Design LOC	SEC Code
C130,C134,C140,C141	2203-005065
C145,C200,C215,C506	2203-005065
C631	2203-005065
C111	2203-005148
C426	2203-005234
C620	2203-005446
C113	2203-005450
C412	2203-005480
C213	2203-005481
C101,C416,C421	2203-005482
C304,C305,C411,C414	2203-005496
C505	2203-005496
C233	2203-005503
C137	2203-005571
C106,C107,C108,C109	2203-006053
C110,C115,C116,C117	2203-006053
C219,C224,C228,C229	2203-006093
C244,C301,U610	2203-006093
C143	2203-006208
C118,C128,C129,C206	2404-001105
C207,C208,C211,C230	2404-001105
C112,C209,C307,C617	2404-001151
C306	2404-001162
C217,C220,C222	2404-001348
L201,L202	2703-000275
L606	2703-001747
L607	2703-001748
L601	2703-001990
L600	2703-002198
L203,R209,R211,R250	2703-002320
L400	2703-002524
L602	2703-002602
L603	2703-002603
L604	2703-002636
OSC402	2801-003856
OSC201,OSC300	2801-004225
OSC401	2801-004318
OSC600	2809-001260
F301,F302,F303,F304	2901-001260
F305,F306	2901-001260

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Design LOC	SEC Code
R400	2007-000172
L204,L205	2007-000173
R122	2007-000758
R204,R360	2007-001119
R606,R609	2007-001288
R202	2007-001323
R602	2007-002797
R603	2007-003001
R132,R133	2007-003022
R607,R608,R610,R611	2007-007008
R612	2007-007107
R123	2007-007137
R406	2007-007142
R503,R504	2007-007200
R407,R409	2007-007308
R220,R222	2007-008275
R337	2007-008748
C114,C120,C121,C122	2203-000233

Design LOC	SEC Code
F602	2904-001410
F601	2909-001208
CN601	3705-001255
CN104	3709-001298
CN102	3709-001316
CN305	3710-001950
CN100	3710-002120
CN101	3711-004230
CN304	3711-005229
CN303	3711-005285
CN302	3711-005345
CN103	3711-005732
CN201	3722-002082
BATT1	4302-001130
U406	GH09-00022A
U401	GH09-00025A
U404	GH13-00022A
ANT1	GH71-03941A

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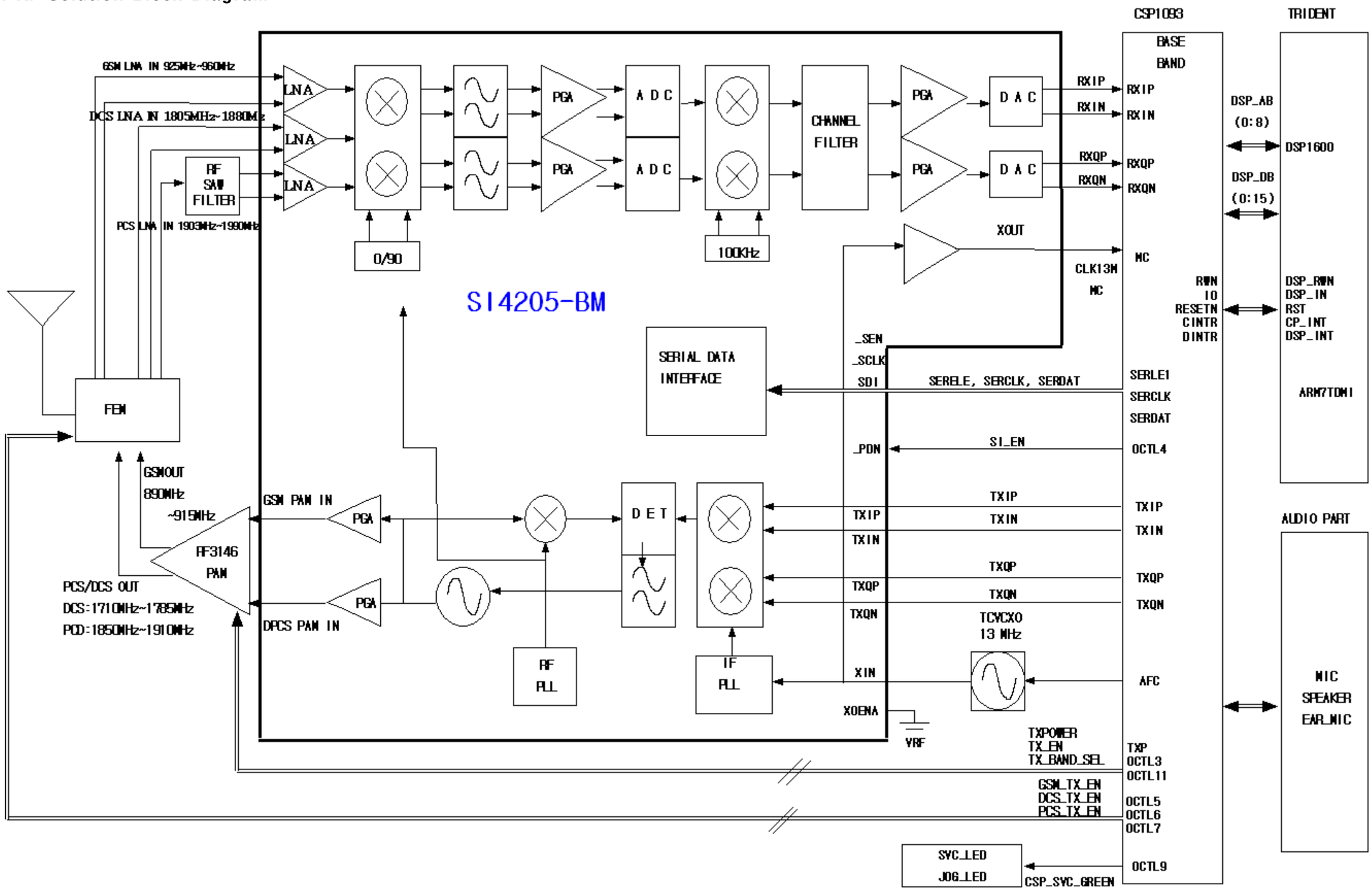
5. SGH-P730 Block Diagrams

1. RF Solution Block Diagram



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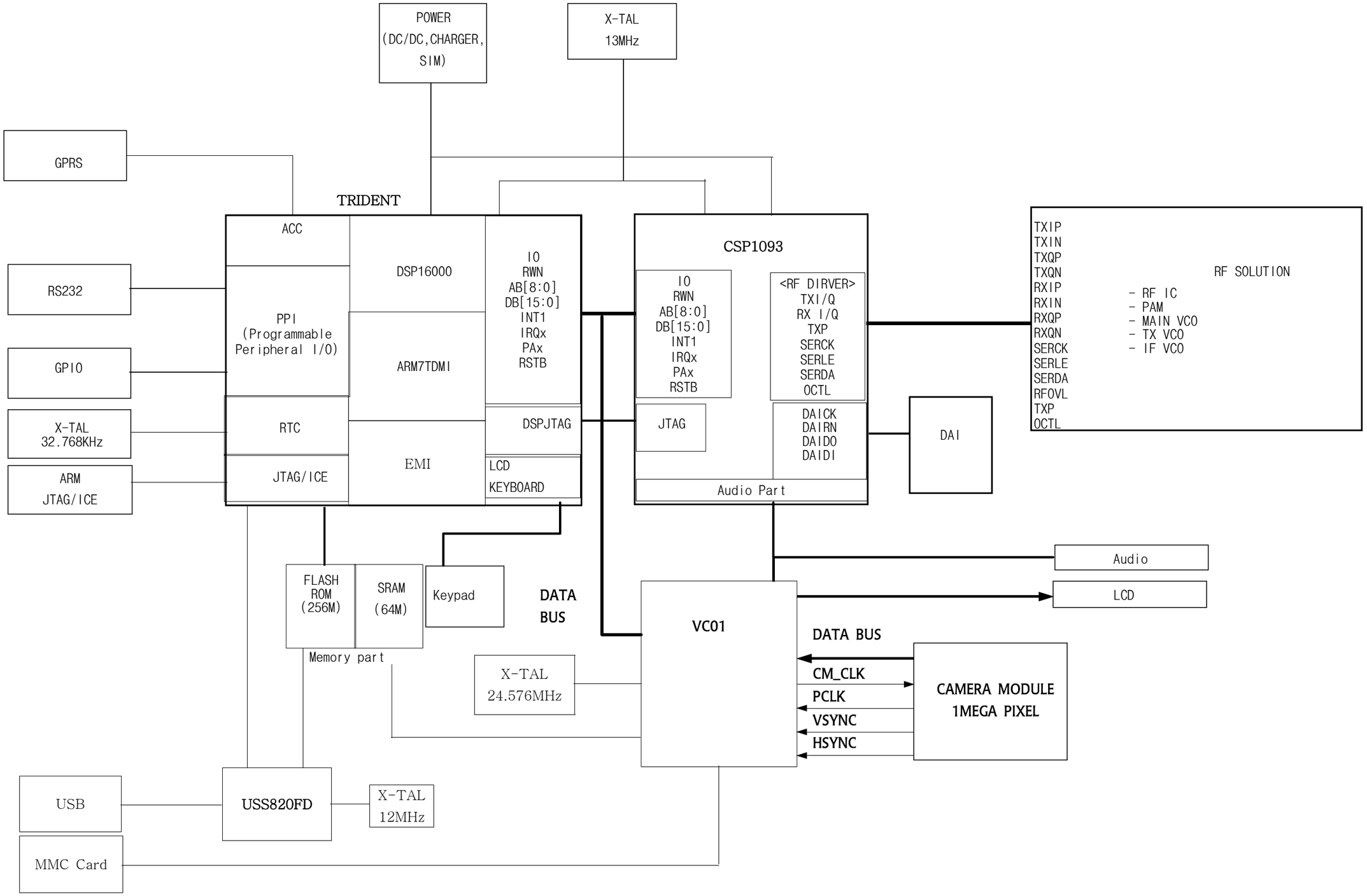
2. Base Band Solution Block Diagram



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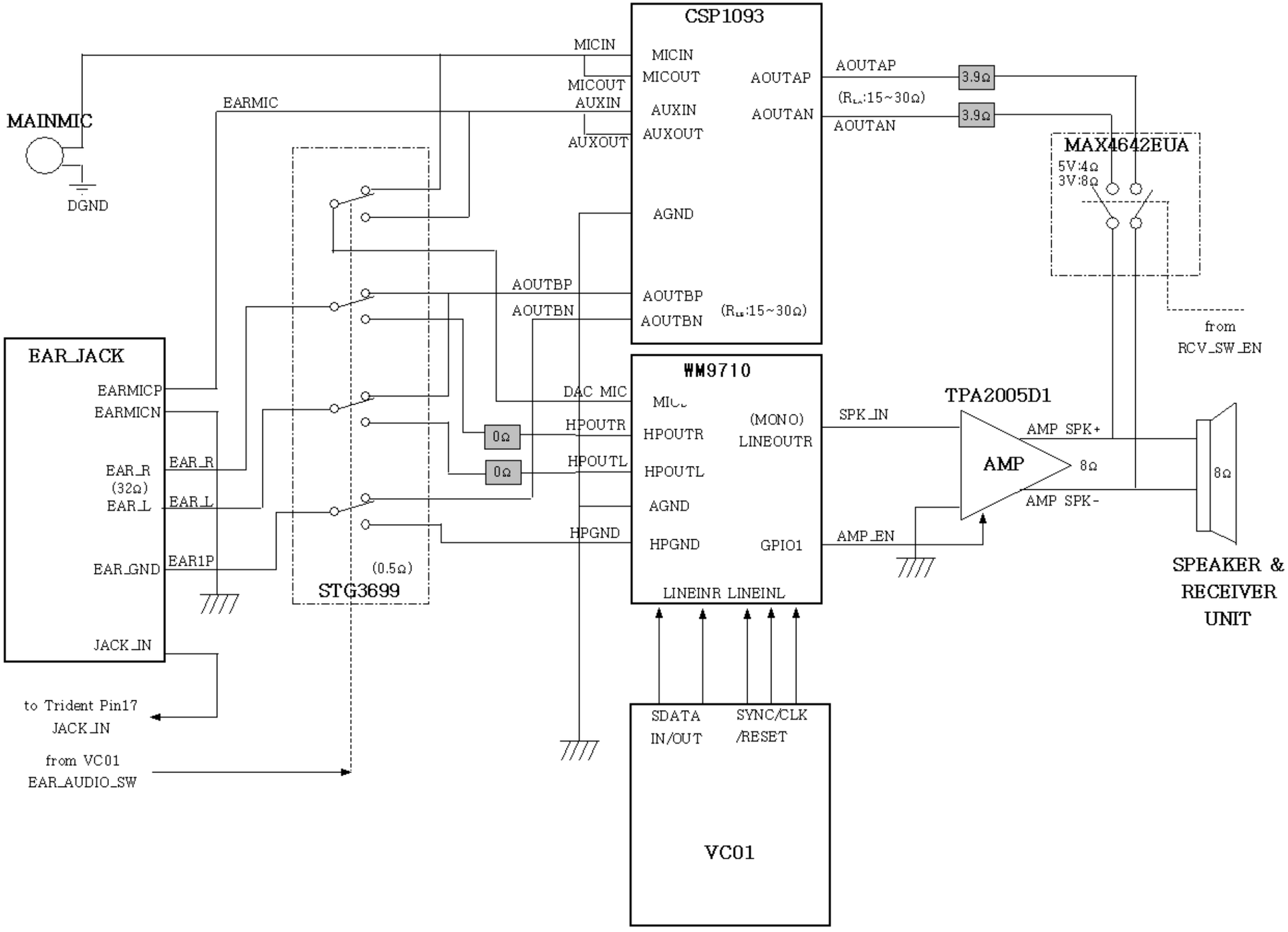
3. AUDIO PART



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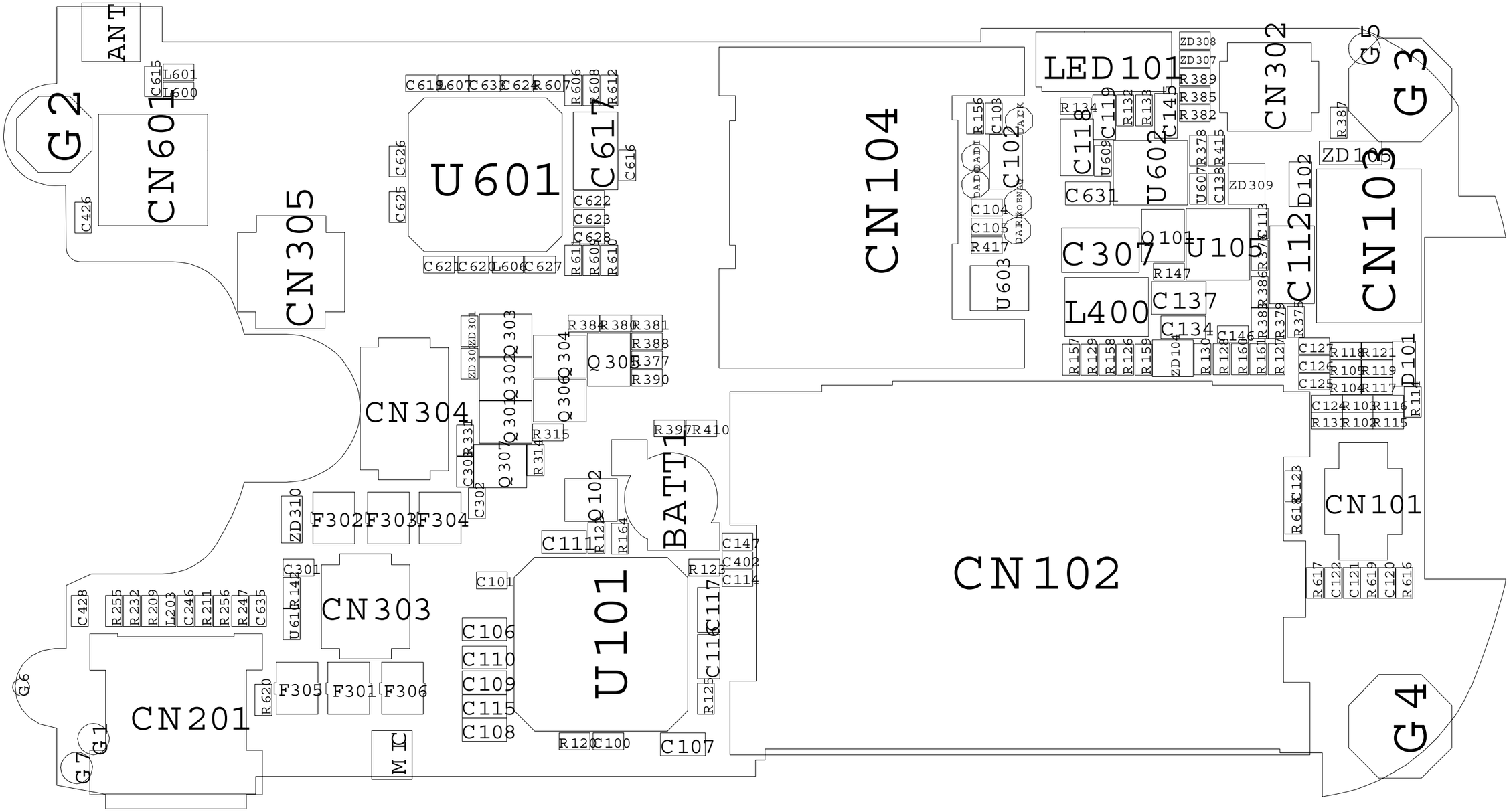
6. SGH-P730 PCB Diagrams

1. Main PCB Top Diagram



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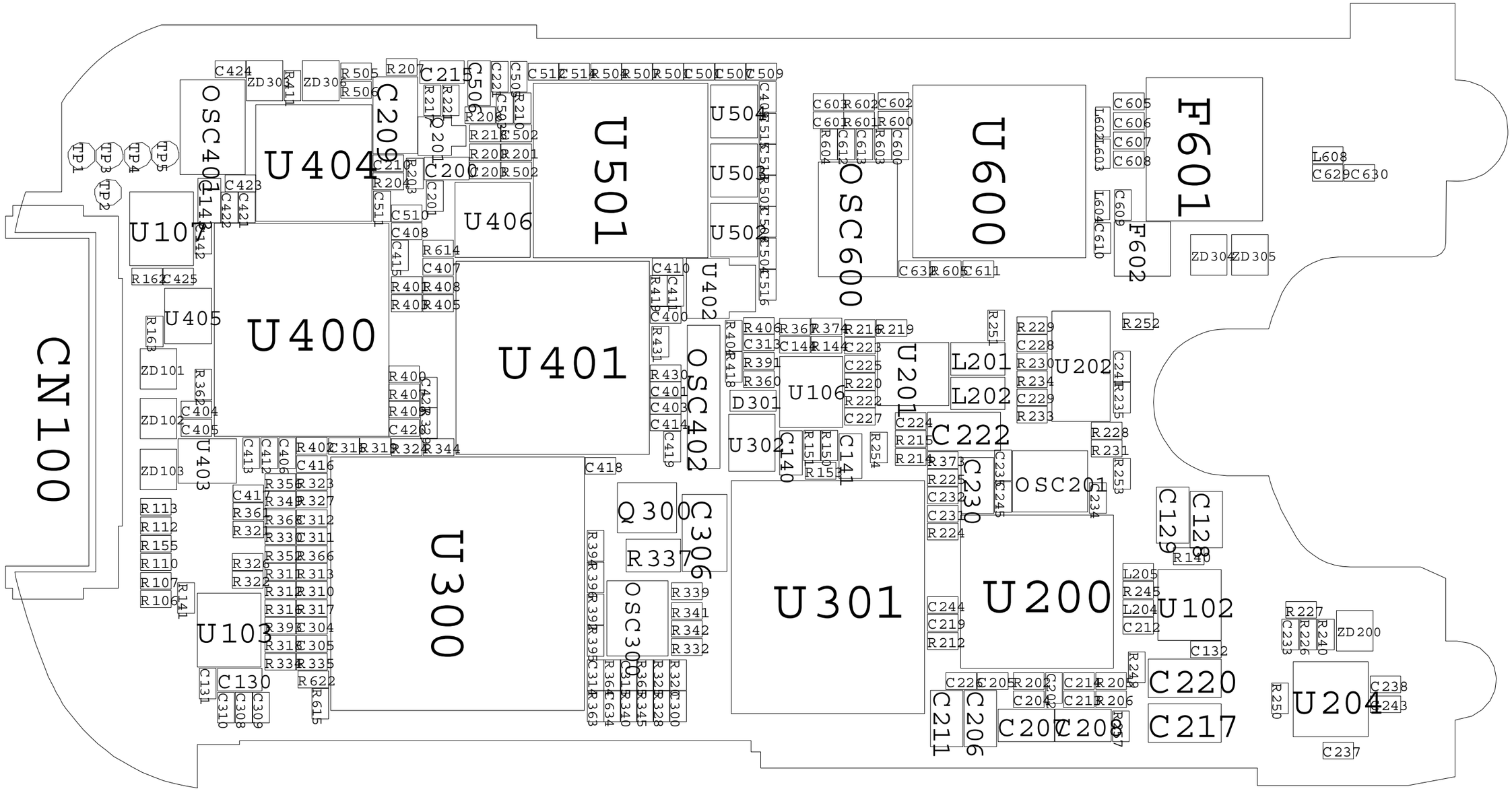
2. Main PCB Bottom Diagram



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